

applies are growing in the large towns,—if slowly, yet certainly. Liverpool, in its Custom-house, its St. George's Hall, its Sailors' Home, has erected edifices worthy of a great metropolis. The new front of the Exchange in Manchester, the almost completed infirmary, and the new borough gaol are features of that town which would hardly have been conceivable to the fathers of the present race of its inhabitants. Not to speak of the architecture only, there are men still living who remember a time when art was there absolutely a stranger alike to the home and to the street. Thirty years ago there were not 1000. worth of pictures in all Preston, and yet we had lately an opportunity of inspecting a single collection in private hands in that town said to be worth 15,000*l*. With the genius and enterprise which converted Newcastle into the finest provincial town in England, every reader is acquainted."

#### PROPOSALS FOR RE-ASSESSMENT OF THE PARISH OF ST. LUKE, CHELSEA.

THE Board of Guardians of St. Luke, Chelsea, proceeded on Wednesday last, the 15th, to open the tenders for revaluing the parish, agreeably to advertisement in THE BUILDER of the 21st December, when the following were found to have been put in:—

	£	s.	d.	Valuation to be completed in 15 months.
W. Bodson, Doctor's Commons	1,000	0	0	
R. Cantwell, Great Marlborough-street	920	0	12	"
J. Young and Co., King-street, Chelsea	875	0	12	"
J. P. Green, Lower Brook-street, Chelsea, with Randle and Corbett, Lincoln's-inn-fields	675	0	12	"
G. O. Lucas, Camden-town	600	0	10	"
Castle and Jarvis, Chancery-lane	600	0	0	Time not named.
F. F. Thompson, Chelsea (with a new map of the parish)	550	0	11	months.
C. Lee, Golden-square	500	0	12	"
J. Brown, Ryder-street, Islington	500	0	8	"
T. W. Collier, Adelphi	500	0	6	"
E. S. Osborne, Nottingham	497	0	6	"
R. Roberts, Holles-street	475	0	6	"
T. M. Nelson, Charles-street, St. James's	473	10	6	"
—Bell, Thornhill-grove, Brompton	450	0	7	"
C. Laker, Vere-street	440	0	19	"
J. Richardson, Wilmet-street	438	0	5	"
J. D. Paine, Southampton-street	387	10	6	"
G. F. Byke, Adelphi, with G. Harland, Newington	350	0	4	"
Smith and Co. Bristol	337	0	9	"

Mr. Paine's tender was accepted.

#### WIDE TENDERS.

SEEMING that carvers and masons are a little out in their calculations as well as boulders, I beg to give you the particulars of the "turn up" for the fittings, &c. for Moulton Church, as advertised in THE BUILDER, as an example:—

	For Wood Fittings, &c.	For Stone Work.
Gowers and Co. Winchester	£1,008	0
Taylor, Williams, and Jordan, London	908	11
Ringham, Ipswich	842	0
Ball and Sons, Cambridge	672	0
Bentley, ditto	556	0
Probert, Bournemouth	498	0
Taylor and Sons, Reading	471	0
Bennett and Sons, Whitlsey	417	0
Watson, Norwich	397	0
Wentley, Newmarket	301	0
Clark and Sons, ditto	236	13

Query—Who was "blind?"  
Cambridge.

**NOISELESS WHEELS.**—The patent noiseless wheel appears to be coming into use in the metropolis. It is understood that a company for noiseless omnibuses and cabs is in formation. Noiseless vehicles would be a greater boon than the wood pavement. The method of effecting this great desideratum, says a contemporary, is by placing a band of vulcanised India-rubber round the outer tire of the wheel. It is no disposed, that although passing over the roughest macadamised road, it is uninjured by the stones; is easier of draught; perfectly noiseless; and, from its easy motion, is a luxury to invalids.

**NEW FORMER INCLOSURES.**—A Treasury declaration has been issued for throwing open and in common certain inclosures in which the growing trees are not in danger by browsing of cattle and deer, or other prejudice, to the intent that an equal quantity of other waste lands in the same forest may be inclosed in lieu of the same for the growth of new timber, as the Act of William III. therein directs.

#### MALTING PLACES.

COMMON consent agrees upon the expediency of yielding to this requirement, and yet every inhabitant objects to the erection of fixtures in contiguity with, or within view of, his abode: it remains for him who, above two years back, remonstrated on the subject through the medium of THE BUILDER, to point out some fitting locations.

There is no *mauvaise honte* on this subject in Paris, where there is a population of about 700,000,—for there we see canvas sheds and tents in the causeways, as, indeed, we find them on the Epsom Course on great meetings.

In London, then, with two million souls, how much more does decency require suitable arrangements.

Since the notice given on the subject, stations have been made at Westminster-bridge, St. Martin's-lane (National Gallery), Hyde-park-corner, and possibly a few other places; but still there are various routes which present no "retiro" for two or three miles, unless crowded lanes and alleys, with the densest population, may be so-called, or mis-used!

Before allusion was made to this subject in THE BUILDER, the writer of this communication sent a similar article to *The Times*, but it was denied insertion! He then wrote to the Commissioners of Woods and Forests, with no better success, for they replied that there were no funds applicable to such a purpose.

The objections made on the part of householders is certainly reasonable; but as there are many householders, and that, too, in the very best quarters in the town, who are aggrieved by the licences taken, despite the police, the penalties, and the water-spout, the regular establishment of resting-places, at equidistant distances, would obviate many public abuses, tend materially to the health of the ambulant population, and relieve the peace officers of a most disagreeable duty.

There is in London, with good regulation, room enough for all; but as houses are so compacted in line that there is no disposable space to be had save by purchase of a tenement, I would recommend that apertures be made in the long lines of wall which are found near most churches, that suitable erections, in slate, with properly constructed hydraulic apparatus, be fitted therein, covered in (with regard to ventilation), and duly provided, as in private houses, in such manner that no noisome effluvia offend either the visitant or the passenger,—that, as in Paris, a custode be appointed to each by the parish or municipality, and that tubular drains communicate from each refugium to the common street sewer without the wall.

A space of 6 feet in depth, by 12 feet in width, would amply suffice for four compartments, or 15 feet for six. The municipality should properly be chargeable with the expense, and that would be trifling, whilst the advantage to public health and morality most amply repay it.

A glance at the crowd of frequenters to the already established and recognised resorts, will show their inadequacy for the object, even in the present this state of the town, when if candidates await in expectancy, what must it be in the full season?

The construction of all, save that at Hyde-park-corner, is faulty; the slate slabs being but half visage high, and just enough to keep the nose within the "*Ammonium stercus*," which, from the want of proper insulation in the summer's heat, is no trifling penalty.

It may by some be considered unseemly to dedicate any portion of grounds overstocked, to nausea, with festering mortality, to the purposes, or even to the relief of the living; but how often do we find lock-ups, round-houses, stocks for obsolete punishments in town; and in the country, stocks of cattle feeding on the rank grass of these domains?

The dead will soon no longer be compacted in confused heaps in these charnel-houses, and they cannot (so far as the limited demand upon them needeth for this purpose) be better applied than in thus conducting to decorum, in withdrawing pollutions from the court or alley of the humble artisan: besides, the church is a definite and known point, and the distance of one from the other would indicate a palp-

able, though not obstructive, and convenient reach.

The year we live in requires some attention to the habits of foreigners, as well as to the health of the land we live in; and as the only way to remedy abuses is to make them patent, these hints are thrown out broad cast through THE BUILDER, without expectation of any more profit than has followed other patent divulgations through the same channel by QUODAM.

#### Books.

*A Treatise on Bracing, with its Application to Bridges, &c.* By R. H. Bow, Civil Engineer. Edinburgh, 1851. A. and C. Black. It is now several years since the description of bracing, chiefly dwelt upon in this work, suggested itself to the author; and he was surprised to find that a method of such simplicity and evident excellence should have been employed in only a few unimportant instances, and, in the majority of these, in a mixed or not very evident way.

He says, "The first example that is likely to occur to the reader is that of the spandrels of Southwark Bridge, but the arch, from its construction and depth of material, is quite independent of additional bracing, and the use of the *losanges* of the spandrels is merely to connect the arch with the roadway: thus, the Sunderland Bridge, which is of nearly the same span, and of greater rise, and composed of voussoirs of less depth and inferior character for rigidity, is, nevertheless, without spandril bracing.

But the most decided case of its employment, in its simplest form, which the author has met with, is that figured in THE BUILDER (page 100, vol. viii.); it is the wrought-iron roof over the Strasburg Railway Station at Paris."

This want of attention to an important principle naturally led him to investigate its qualifications, and it was his expectation to have had opportunities, in the exercise of his profession, of making practical use and exemplification of the results. Such opportunities, however, not having as yet occurred, he adopts the means of the pen to place his investigations in such a position that they may be capable of becoming useful.

As a foundation from which to commence, he assumes the following propositions:—

PROP. I. In a triangle, an angle cannot increase or diminish without the opposite side also increasing or diminishing.

PROP. II. When the angles of a figure are unchangeable, the shape is unchangeable, and, therefore, the figure is completely braced.

The converse of each of these is also true.

A triangular structure, having sides that are unchangeable, is a completely braced form.

If a quadrilateral figure alter its shape, the angles alter, and, as the sum of the angles must be equal to four right angles, they cannot all increase or all diminish; therefore (considering the diagonals as third sides of triangles) the diagonals must one increase and the other decrease.

The subject of the book is interesting to all constructors, and Mr. Bow has treated it very lucidly and efficiently.

*The Elements of Mechanism; containing a familiar Explanation of the Construction of various kinds of Machinery, &c.* By THOMAS TATE. Longman, Brown, Green, and Longmans. 1851.

BETWEEN training at Battersea and publishing in Paternoster-row, Mr. Tate's time, we should think, must be pretty well used up. The present useful little volume may be regarded as a twin accompaniment to the author's "*Exercises in Mechanics and Natural Philosophy*." It is intended for the use of private students and schoolmasters, and contains, besides an excellent compendium of all sorts of mechanism and machinery, new and old movements, &c., a profusion of well-engraved illustrations. Engineering students as well as elementary teachers would do well to make use of this familiar exposition of the leading principles of mechanism. Any thing difficult in the investigations is printed in small type, so that the student may legitimately slip these on a first perusal.